

## REMARKS

Firstly, the Applicants would like to thank the Examiner for the telephonic interview on December 16, 2003. As noted, this application is a continuation in part of 09/123,492 which is a continuation in part of PCT/US97/01725 which is a continuation in part of 08/593,677. Application Serial No. 09/123,492 was issued as U.S. Patent No. 6,197,940 on March 6, 2001.

Claims 13-16 have been cancelled without prejudice. As discussed with the Examiner, Applicants herein introduce new claims 17-21 that are more specific to the invention. Applicants further believe that new claims 17-21 better distinguish the invention from antibodies that are described by Nagakubo et al. Support for the new claims may be found throughout the specification, including the claims as originally filed. No new matter has been added.

In particular, support for new claim 17 may be found on paragraphs 73-75 on pages 26 and 27, and paragraph 113 on page 35.

Support for new claim 18 may be found on Figure 8 and paragraph 73-75 on pages 26 and 27.

Support for new claims 19-20 may be found on Figure 13 and paragraph 44, page 15.

Support for new claim 21 may be found on Figure 13.

Cancellation of claims should in no way be construed as an acquiescence to any of the Examiner's rejections. The cancellation of the claims are being made solely to expedite prosecution of the present application. Applicants reserve the right to further prosecute claims drawn to all subject matter disclosed in the instant patent application or in a continuation hereof.

The Examiner has also indicated that SEQ ID NO: 3 will be accorded the filing date of 1-3-01 as it does not appear to have been disclosed in prior applications. Applicants would like to respectfully point out that SEQ ID NO: 3 was disclosed in Figure 3 of Application Serial No. 09/123,492 which was filed July 28, 1998. Applicants respectfully request that SEQ ID NO: 3 be accorded the filing date of July 28, 1998.

The Examiner's remarks in the last Office Action are addressed below. It is believed that

the amended claims and all dependent claims, taken in light of the remarks made herein, meet all criteria for patentability.

## **CLAIM REJECTIONS**

### **Rejection of claims under 35 U.S.C. §102**

The Examiner has rejected Claims 13-14 and newly added claims 15-16 under 35 U.S.C. 102(b) as being anticipated by Nagakubo et al. The Examiner further states that “Applicant’s arguments filed on 8-22-03 have been fully considered but are not found persuasive.” In particular, the Examiner finds that the declaration filed on 8-22-03 “is insufficient to overcome the rejection of claims” as the Examiner finds that “peptide DTSLEEAKTQGPYDV derived from the SP-22 protein is specifically bound by the DJ-1 polyclonal antibody, thereby meeting the limitations of the currently recited claims drawn to functional fragments derived from the SP22 molecule.”

Claims 13-14 and newly added claims 15-16 are herein withdrawn without prejudice, rendering the instant rejection moot with respect to these claims. It is believed that the new claims are not anticipated by Nagakubo et al. as new claims teach antibodies that bind to functional fragments defined as peptide sequences exposed on the sperm surface (see paragraphs 73-75 on pages 26 and 27). Applicants respectfully assert that peptide DTSLEEAKTQGPYDV derived from the SP-22 protein is not exposed on the sperm surface as evident from the micrographs provided in the Declaration filed 8-22-03 that shows DJ-1 antibody is incapable of immunostaining SP22 on the surface of fresh unfixed human sperm. Thus, Applicants respectfully request reconsideration and withdrawal of these rejections under 35 U.S.C. §102(b).

## **CONCLUSION**

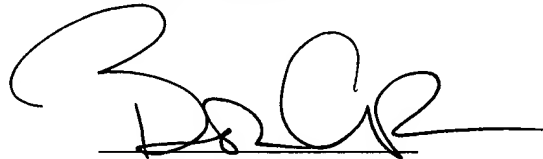
For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the pending rejections. Applicants believe that the claims now pending are in condition for allowance, and notification of such is respectfully requested.

The Commissioner is hereby authorized to credit any overpayment or charge any deficiencies to Deposit Account Number **06-1448, Reference ISA-013.03.**

If, for any reason, a telephonic conference with the Applicant would be helpful in expediting prosecution of the instant application, the Examiner is invited to call Applicants' Attorney at the telephone number provided below.

Respectfully submitted,

FOLEY HOAG LLP

A handwritten signature in black ink, appearing to read 'Beth E. Arnold', is written over a horizontal line.

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December 29, 2003

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